

# Increase of Learning Achievement for Internet Technology for Daily Uses using Online Learning

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## Abstract

E-learning is a pattern of study applying an information technology to support self-education. A student can learn in endless time at any places. It also enhances teaching and learning in class in advance. The objective of this e-learning research is to enhance capabilities of students before and after class. The research is developed for a subject, namely Internet Technology for Daily Uses, of Faculty of Science and Technology. The content of each lesson covers an area of using internet for daily uses. The dataset of the research consist of 220 students from Faculty of Business Administration and Faculty of Science and Technology who register in this subject. The e-learning system is measured by satisfaction of students and experts in three areas that are 1) Website Design 2) Functions of System and 3) Data Services. The experimental result is shown that the average value of whole system is 4.69 that means excellent, and the standard deviation is 0.45 that means excellent as well. In addition, the most satisfied area in measurement is Functions of System while the lowest of satisfaction is Website Design.

Keywords: *e-learning, self-education, internet technology, online learning*

## I. Introduction

E-learning is a pattern of study applying an information technology to support self-education. A student can learn in endless time at any places. It also enhances teaching and learning in class in advance. The objective of this e-learning research is to enhance capabilities of students before and after class. The research is developed for a subject, namely Internet Technology for Daily Uses, of Faculty of Science and Technology. The content of each lesson covers an area of using internet for daily uses. The education system of E-learning is focusing the self-learning of student. Learners can solve the problem by themselves. Teacher recommends some point to the student. E-learning system is created the interface system of efficiency, motivation and charming.

The rest of this paper is organized as follows. Section 2 gives literature review the previous papers and concludes the all techniques are used in our experiments. In Section 3, we present the system design and implementation details of the proposed system of online learning. Finally, Section 4 gives experiments and conclusion details of the online learning.

## II. Literature Reviews

In this section, we review the previous papers and conclude the all techniques are used in our experiments. First paper, Surin investigated his research by using Think Pair Share technique on the Moodle LMS. The research is shown the efficiency validation, to study the expert's opinion, and to find out the achievement comparative of this particular WBI. The

results is shown that, the efficiency of the WBI is 87.50/86.50 which is higher than 85/85 as in the hypothesis [4]. Second paper, Adirek proposed the work of the development, efficiency validation and achievement finding of WBI on mathematics in everyday life undergraduate program at Burapha University Chanthaburi IT campus program by using think pair share. The research result is shown that WBI could be used the developed for instructor [5]. Third paper, Jatsada studied web based instruction using Think-pair Share method in domain of computer information system Students, Rajamangala University of Technology Isan, Kalasin Campus. The result is exhibited that students have retention in learning by using web based instruction designed by the researcher [6]. Fourth paper, Pairoj presented to develop, efficiency validation, and achievement finding of WBI on Computer Mathematics, vocational certificate program by using Think- Pair-share technique on the Moodle LMS. He found that the WBI could be used to teach and study effectively in the real situation [7]. Fifth paper, Phaisal presented to develop and validate the efficiency of drill am practice computer-assisted instruction on “webpage development packages” on LMS (Moodle), to compare learning achievement of the sampling group who learn by self-learning and think Pair share Learning group. The research is shown the efficiency of the developed is pretty good by using meguigam’s formula and the student achievement of the group who ware Think- Pair Share Learning higher than self – learning [8]. Sixth paper, Prawit, Charan, and Wittaya proposed a development of computer network based learning using collaborative learning on for undergraduate student based on constructivist theory. The research is shown the 81.32/82.10 of determined standard effectiveness of computer network based learning using collaborative learning on for undergraduates’ student based on constructivist theory, and the high level of the experts’ point of views toward the developed computer network based learning [9].

### **III. The Proposed System of Online Learning**

I proposed the system of online learning for the subject of Internet Technology for Daily Uses, of Faculty of Science and Technology. The system of Increase of Learning Achievement for Internet Technology for Daily Uses using Online Learning is developed and depended on four steps as follows. First step is study and arrange the related content of lessons. The knowledge is investigated from many sources, namely treatises, documents, and researches. The content of lessons are the introduction to internet, the exploration to internet, services on internet and internet explorer, how to create homepage and webpage, web browser, collection to files and virus detection, network technology and E-mail using, bit torrent and Wikipedia, and search engine. Second step is analysis and design the proposed system. I analyzed and designed the sample domain, tools, content of lessons. The system is used by user such as instructor, learner, and administrator. Third step is preparing resources and action system. I start with creating the online lessons. The developed system is uploaded in real system namely [www.moodle.rmutt.ac.th](http://www.moodle.rmutt.ac.th). The last step is evaluation result and documentation.

The dataset of the research consist of 220 students from Faculty of Business Administration and Faculty of Science and Technology who register in this subject.

The proposed online learning architecture is shown in Figure 1. The system consists of five main functions namely register, subject management, profile edit, lessons, and system management. Register menu consists of Register function and Member function that providing information of learner, instructor and administrator. Subject Management menu involves management of subjects for example, addition content, correction lesson, and deletion content. Profile Edit menu is related private information. Learners can self-study from lessons from Lessons menu. Last menu, System Management is provided for administration and instructor to maintenance system.

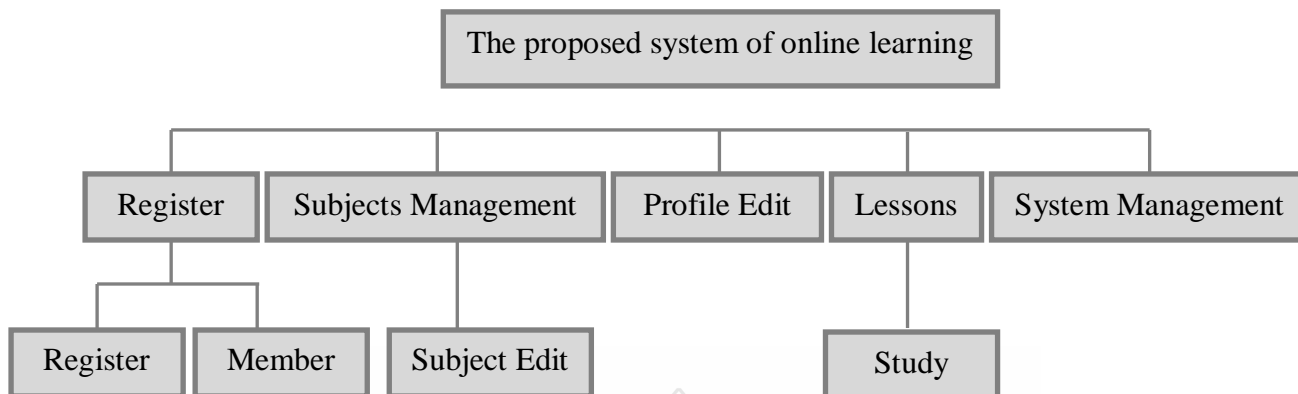


Figure 1 shows the architecture of proposed system

### IV. Experiments and Conclusion

Our experiments are performed by using the dataset of the research consist of 220 students from Faculty of Business Administration and Faculty of Science and Technology who register in this subject. Figure 2-5 shows the result of the proposed system. There are provided learner, instructor and administer.

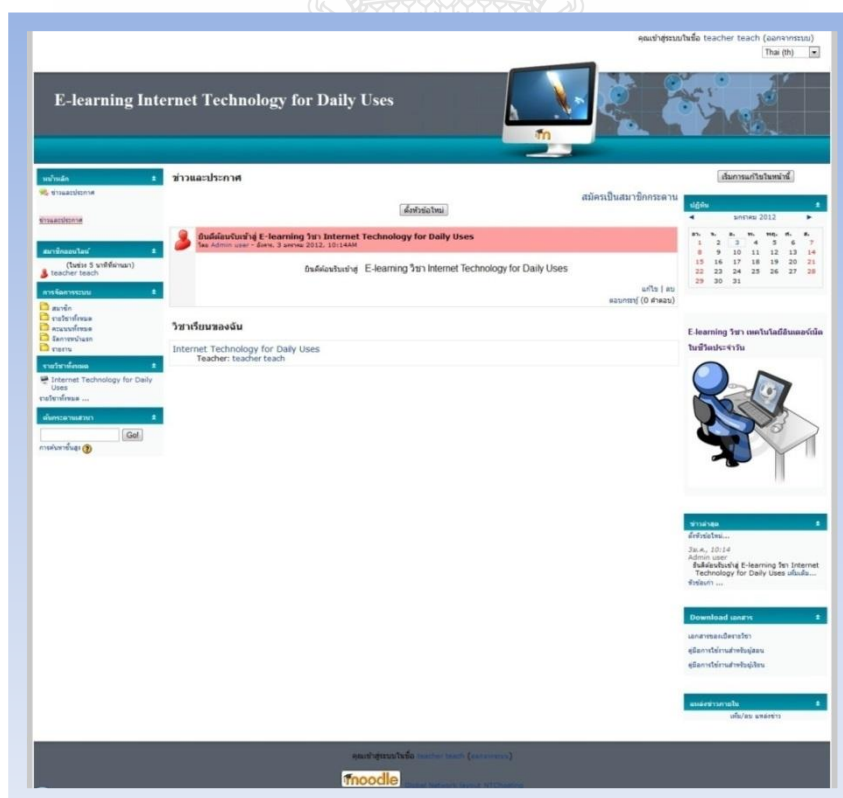


Figure 2 shows main menu of instructor

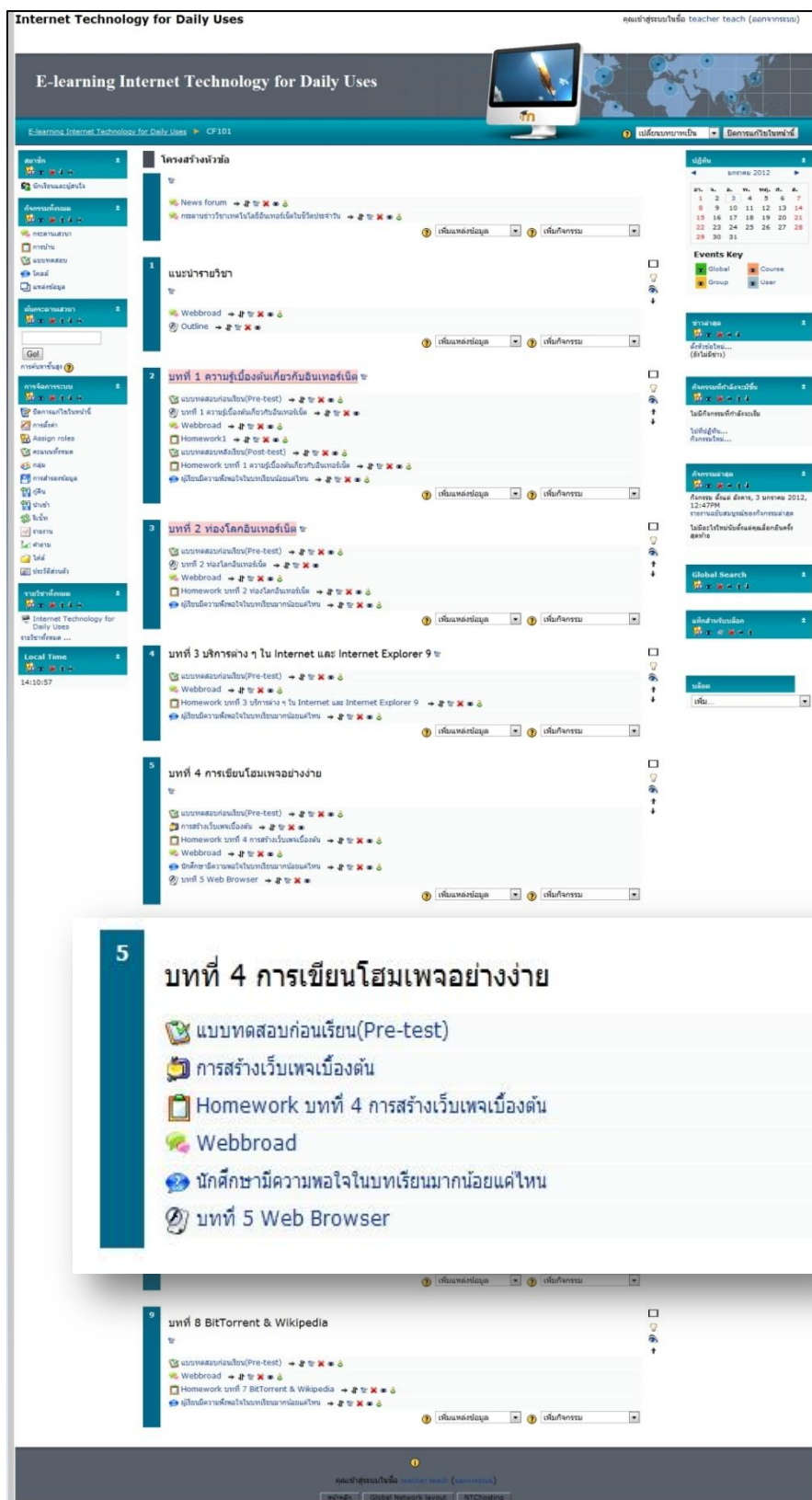


Figure 3 shows the content of lessons



Figure 4 shows the example of examination

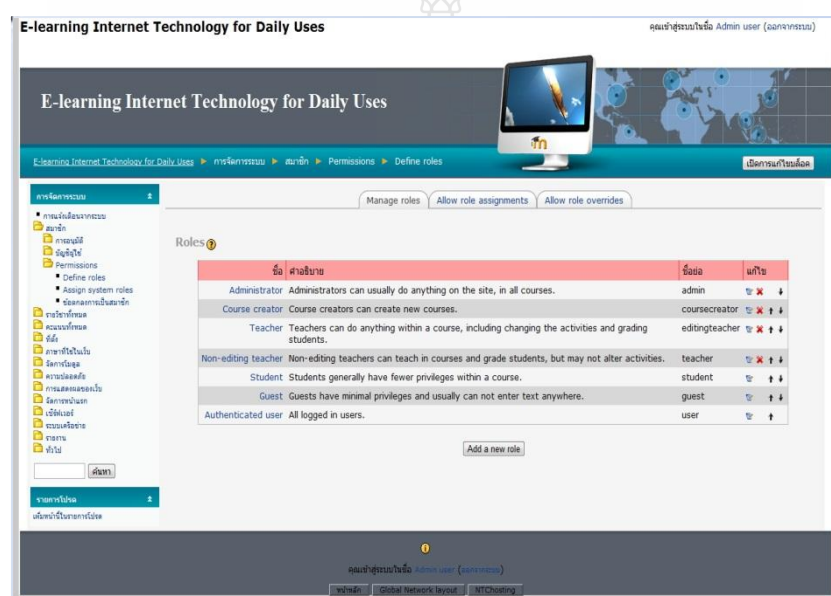


Figure 5 shows the right access to information

The e-learning system is measured by satisfaction of students and experts in three areas that are 1) Website Design 2) Functions of System and 3) Data Services. The experimental result is shown that the average value of whole system is 4.69 that means excellent, and the standard deviation is 0.45 that means excellent as well. In addition, the most satisfied area in measurement is Functions of System while the lowest of satisfaction is Website Design.

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